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AUTHOR Polit, Denise F.; And Others
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ABSTRACT

This updated version of a 1985 monograph includes new findings on Project Redirection, a program intended to ameliorate many severe problems that typically accompany childbearing among economically disadvantaged adolescents. It opens with a review of the consequences of teenage pregnancy and the Redirection approach for addressing the problems. The monograph then discusses the sites' operational experiences. It next reviews the methodology and findings of an impact study that compared, over a 5-year period, teen participants in Redirection with a group of teens similar in all respects except that they had not received the Redirection services. These results are reported: at the 1-year point, participation in Redirection resulted in improvements in education, employment, and childbearing; by the 2-year point, many of the favorable results had disappeared; at the 5-year point, participants had better outcomes in terms of employment and welfare dependency; and at that point, participants appeared to be more competent parents, and their children were at a developmental advantage compared to those of women in the comparison group. The monograph concludes with a summary of lessons for policymakers, program planners, and funding agencies to improve the effectiveness of programs for low-income, school-aged mothers. (YLB)

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The Challenge Of Serving Teenage Mothers

Lessons From Project Redirection

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Denise F. Polit
Janet C. Quint
James A. Riccio

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Introduction

This updated version of a 1985 monograph includes important new findings on Project Redirection, a program intended to ameliorate many of the severe problems that typically accompany childbearing among economically disadvantaged adolescents. These findings indicate that five years after entering the program (and four years, on average, after leaving it), Project Redirection participants, while still disadvantaged, had more favorable outcomes than a comparison group of young mothers in the areas of employment, earnings, welfare dependency, and parenting skills; their children were also at a developmental advantage.

Project Redirection was directed toward young teenagers — those who were 17 years or younger, lacked a high school diploma or equivalency degree, and were generally either receiving or eligible to receive Aid to Families with Dependent Children (AFDC). The program's approach was comprehensive, seeking to enhance the teens' educational, job-related, parenting, and life-management skills, while encouraging these young people to delay further childbearing until they had become more self-sufficient. The program's strategy was to link participants with existing services in the community and to support these "brokered" services by providing workshops, peer group sessions, and individual counseling in the program setting. It also paired teens with adult "community women," who volunteered to provide ongoing support, guidance, and friendship outside and within the formal program structure. Chart 1 describes the program model.

Despite the growing concern in this country about high rates of pregnancy among unwed teenagers, reliable information about the effectiveness of programs serving young mothers is extremely limited. Consequently, Project Redirection was implemented as a national research demonstration to test the feasibility and effects of its particular approach in helping pregnant teens and young mothers. After the program's inception in mid-1980, four programs (often called sites) and their participants were intensively studied by the Manpower Demonstration Research Corporation (MDRC), an organization that designs and evaluates innovative social programs. MDRC helped the sites implement the program model and monitored local operations. It also bore overall responsibility for the research.

The local programs brought geographic and ethnic diversity to the demonstration, which was managed by community organizations experienced in working with disadvantaged youths. These organizations included one in a Puerto Rican community in Boston; another in a black community in New York City (Harlem); a third in a Mexican-American community in Phoenix; and a fourth in a racially mixed community in Riverside, California. Two of the sites — New York and Phoenix — were able to serve as many as 100 teens at a time, while the other sites had a smaller capacity of 50 teens each.

From 1980 through December 1982 — when the main demonstration ended — the sites had served 805 teens.

The demonstration was funded at the national level by The Ford Foundation, the national office of the Work Incentive Program (WIN), and the Offices of Youth Programs and of Policy Evaluation in the U.S. Department of Labor. The Ford Foundation, along with the Office of Population Affairs in the U.S. Department of Health and Human Services, also supported a five-year follow-up study of the program's effects on the mothers and their children. The William T. Grant Foundation funded a special study of the community woman component. Each of these organizations saw the need for learning more about how to assist this group of young people, many of whom seemed destined for long-term welfare dependency and other serious problems. At the local level, the site sponsors secured matching funds from community sources, both governmental and private.

CHART 1

Project Redirection Program Features

Objectives	• Continuation of education • Delay of subsequent pregnancies • Acquisition of employability and job skills • Improved maternal and infant health • Acquisition of life management skills (e.g., family planning, parenting skills, and nutrition education)
Eligible Target Population	Adolescent girls: • Age 17 and under • Pregnant for the first time, or mothers of young children • Receiving welfare, either as head of a case or a member of a welfare household (Up to 20 percent of active enrollees could be from a family not receiving welfare but with a current annual income within 70 percent of the lower living standard.) • Without a high school diploma or GED
Service Delivery Features	• Individual Participant Plan • Community woman component • Peer group sessions
Participating Organizations	• New York: Harlem YMCA • Boston: El Centro del Cardinal • Phoenix: Chicanos Por la Causa • Riverside: Children's Home Society

In 1983, based on promising interim findings from the evaluation, the demonstration was expanded. Seven community foundations and a state agency joined The Ford Foundation in financing seven more sites in which existing teen programs adopted various features of Project Redirection. These sites — which provided an opportunity to study the wider adaptability of the program model — were located in Albuquerque, New Mexico; Atlanta, Georgia; Brooklyn, New York; Cleveland, Ohio; Greenville, Mississippi; El Paso, Texas; and St. Louis, Missouri. Local organizations supporting this replication included the Levi Strauss Foundation of San Francisco (which supported the program in Albuquerque); the Metropolitan Atlanta Community Foundation; the New York Community Trust; the Cleveland Foundation; the Governor's Office of Job Development and Training in Mississippi; the El Paso Community Foundation; the St. Louis Community Foundation and the Danforth Foundation, also in St. Louis. MDRC issued a report on the operational experience of these seven sites in the fall of 1985.

The research on the four original sites has been published in several earlier reports[1] and has three major parts:

- an **impact analysis,** which measures the effects of Project Redirection on teens' contraceptive, childbearing, educational, welfare, and employment-related behaviors;
- an **implementation analysis,** which describes the Project Redirection treatment and assesses the feasibility and cost of the program; and
- an **ethnographic analysis,** which uses field work techniques to describe how the circumstances and backgrounds of a small group of program participants (some of whom are profiled in this monograph) influenced the behaviors the program sought to change.

MDRC research staff conducted the implementation and ethnographic studies. Humanalysis, Inc. and the American Institutes for Research in the Behavioral Sciences conducted the impact analysis under the supervision of MDRC.

The implementation research on Project Redirection shows that the program model was feasible. Community women and teens were willing to join the program and, for the most part, formed close relationships with each other. Moreover, the staff was able to provide teens with the promised comprehensive services, although the "brokerage" approach to service delivery often made it difficult to assure high quality and appropriate content of services.

The impact research traced the experiences of young mothers who enrolled in Project Redirection, or who belonged to a matched comparison group, through interviews that were conducted at one, two, and five years after they entered the study. The five-year interview also examined outcomes for the children of the young women.

The impact research indicates that at the five-year point Project Redirection participants had better outcomes than the comparison women, and that their children also registered notable gains. In particular, Redirection participants:

- were working more hours per week and had higher weekly earnings;
- were less likely to be receiving welfare; and
- scored higher on a widely used test of parenting ability.

Their children:

- showed better cognitive skills, as measured by a test of vocabulary knowledge; and
- exhibited fewer behavioral problems.

These findings are particularly important because while Redirection participants had done better than comparison group members at the one-year mark, this advantage largely disappeared at two years. That the program later turned out to have made a difference points to the need for long-term follow-up to evaluate interventions to assist young people.

However, while the results are encouraging, they also suggest that many needs remained unmet. Fewer than half the Redirection participants had completed high school at the five-year point; only a third were working; and more than half were receiving AFDC. Their individual situations varied, but the majority of these young women were living in poverty.

This monograph summarizes the major lessons from the research on Project Redirection. It opens with a review of the consequences of

teenage pregnancy and the Redirection approach for addressing the problems, and discusses the sites' operational experiences. It then reviews the methodology and findings of the impact study, and concludes with a summary of lessons to be considered by policymakers, program planners, and funding agencies who are seeking ways to improve the current and future prospects of pregnant and parenting adolescents.

Consequences of Teenage Pregnancy

The prevalence of teenage pregnancy and childbearing in the United States is well-documented. In 1985, there were 178,009 births to women 17 years of age and younger, 72 percent of whom were unmarried.[2] And there were at least two pregnancies for every birth.

Project Redirection's comprehensive approach reflects accumulated evidence pointing to a broad range of problems generated by teen childbearing. One concern is the health of the teens and that of their children. According to many studies, pregnancy poses greater risks of toxemia, anemia, and other complications for teenagers than for women in their twenties. The young women's babies, in turn, are at greater risk of being stillborn or born prematurely; they are also more likely to have a low birthweight and physical and mental handicaps.[3]

Studies also illuminate other difficulties for the young mothers. Teenage childbearing increases the probability that an adolescent will drop out of school, and generally reduces her overall level of educational attainment. It is also associated with larger family size. In turn, lower educational levels and larger families mean that teenage mothers tend to have less success in the labor market than do women who delay childbearing — as reflected in teen mothers' low-paying and less prestigious jobs and lower annual earnings.[4]

Particularly because they fare poorly in the workforce, teenage mothers have a high probability of becoming dependent on public assistance. Among unmarried women who had their first child between the ages of 15 and 17, 73 percent started receiving welfare within four years.[5]

Early childbearing is also associated with significantly longer stays on welfare. According to one projection, a nonwhite high school dropout who starts receiving welfare as a single mother will average about ten years of AFDC dependency.[6]

Society must bear a substantial economic burden to sustain young mothers. More than half of all AFDC expenditures go to maintain households in which the mothers were teenagers when their first child was born. In 1985, taxpayers spent $16.65 billion on cash assistance, food stamps, and medical care for families begun as a result of adolescent pregnancy.[7]

The negative consequences of teenage childbearing extend to the next generation. Many studies show that the children of teen parents are at greater risk of behavioral, intellectual, and academic difficulties than are children of older parents, and they are also likely to become adolescent parents themselves.[8]

Implementing the Redirection Model

Each local Redirection program began with a setting and a staff. The setting usually consisted of at least one large area that could be used for group activities and several private or semi-private offices lodged in the building occupied by the sponsoring agency or in another convenient location. Because they expected that teens would come to the program often — at least weekly or biweekly — for workshops, other activities, and counseling, and that some teens would use the facility as a "drop-in" center, staff tried to create a cheerful, homey environment, complete with sofas, plants, and posters. There were also playpens and toys for teens who brought their children to program offices.

The staff were primarily composed of social workers and other human services professionals, and typically included a program director, a coordinator for the community women, and several counselors. One of the counselors was usually responsible for the delivery of program services either by program staff or, more often,

by other community agencies and organizations. At three of the four sites, the local WIN program contributed a full-time worker who interceded for the teens with the welfare system and other public agencies. Except for these WIN employees, all Project Redirection staff were women.

In operating Project Redirection, the local programs had to attract and retain the teens while also delivering a wide range of services — many of which (such as parenting classes) the teens liked, and some of which (such as education) they may have resisted. This challenge was both considerable and ongoing, and as a result, the programs changed substantially over time. In response to funding cutbacks, to directives from MDRC, and to the perception of local sponsors that certain modifications were needed, sites altered their operations as implementation progressed.

Therefore, the history of Project Redirection's implementation is largely the story of a program in transition. In retrospect, it seems fair to say that the sites had more success in some areas of operation than in others.

Recruitment and Characteristics of Program Participants

Initially, the sites sought to begin their programs quickly and drew their participants almost exclusively from other agencies serving this population — among them, hospitals and health clinics, welfare offices, schools, and other community organizations. Still, to secure the cooperation of these organizations, Redirection staff spent considerable time explaining the new program.

It was especially important to reassure outside agency personnel that Redirection was intended to cooperate with and complement, not compete with, existing services. An effective technique was to include these agencies and organizations in the network of providers to which Redirection staff made and from which they received referrals.

However, the fact that more than two-thirds of the participants enrolled came from referrals during the program's first eight months led to a different concern: that this recruitment strategy was not reaching the teens who needed assistance most. As the sites' operations matured, MDRC urged them to diversify their recruitment techniques and to rely less on outside agencies. Most sites were able to do so, enrolling over one-third of their new participants from among the friends of teens already in the program. These new participants, however, turned out to have characteristics and service needs similar to the other participants. It may well be that, at a time when services for adolescent parents were proliferating in urban areas, only the most isolated and hard-to-reach teens remained untouched by some service program.

It is important to emphasize that most teens in Project Redirection were extremely disadvantaged compared not only to adolescents in general, but also to other teen parents. Table 1 presents the salient demographic and socioeconomic characteristics of the 805 teens enrolled in Project Redirection's four sites between July 1980 and December 1982. Fifty-six percent were pregnant with their first child; 44 percent were already parents. Almost 90 percent were members of ethnic minorities. Most lived with their mothers and siblings (only one in seven was in a two-parent household), and most had only irregular contact with their fathers. About three-quarters of the participants reported that their own mothers had themselves been teenage parents.

The severe educational deficits of these teens, evidenced by both their poor verbal skills and low academic standing, posed one of the program's most difficult challenges. On a vocabulary test administered as part of the five-year follow-up, they scored at only the tenth percentile among young women their age nationally. And, at age 16 (when most young people are in the tenth or eleventh grades), the average enrollee in Project Redirection had not yet completed the ninth grade. Most of these teens (59 percent) had already dropped out of school when they joined Redirection. And, while pregnancy is often a reason for leaving school, fully half of the teens who had dropped out appear to have been so alienated from the educational system that they had left school before they became pregnant. Moreover, the ethnographic study suggests that truancy was common

among those who were still formally in school.

Over 70 percent of the teens were receiving AFDC at enrollment, either as heads of cases or as part of another person's case.[9] However, despite their heavy reliance on welfare, few teens aspired to receive public assistance, according to the ethnographic study. Most, including those whose families had been on welfare for many years, asserted that AFDC payments were too low to support the life they wanted. Indeed, while teens were largely disaffected from school, many looked to their own employment — rather than to early marriage or public assistance — to provide economic security, at least for the foreseeable future.

Thus, 92 percent of the teens reported that they would rather work than be on welfare, and only 3 percent thought welfare was preferable. (The remaining 5 percent were not sure.) But, although the teens were interested in jobs, few had career goals, and many were unaware of the education and training that specific occupations require. Only a handful had previously received services to help develop their employability.

Just over half of the teens (54 percent) said that they had used birth control, but only 60 percent of this group said that they did so all the time. Only 22 percent had ever received family planning services before entering the program. On the other hand, almost all had received prenatal care, and most of those who were already parents had obtained pediatric care for their children.

However, these numbers do not capture the complex psychology of adolescent motherhood or the severity of the problems many teens faced. The environments and family backgrounds from which many Redirection enrollees came were often highly troubled. Among the 18 teens studied in depth in the ethnographic analysis (a group that was largely representative of all enrollees), at least two had been raised by abusive parents (and one was herself suspected of child abuse), and a few were estranged from their mothers. However, the study strongly suggests that most of these teens could turn to their mothers for psychological support.

Some teens moved in for a time with friends or boyfriends, or established their own households. This was not always the best arrange-

TABLE 1

Selected Characteristics of Teens at Time of Enrollment in Project Redirection

Characteristic	Teens Enrolled
Ethnicity (%)	
Black	43.5
Hispanic	44.7
White	11.1
Other	1.7
Age (%)	
14 or Less	10.3
15	21.3
16	32.5
17	36.0
Mean Age (Years)	16.4
Pregnancy Status (%)	
Pregnant with First Child	56.3
Pregnant with Subsequent Child	4.4
Parent, Not Pregnant	39.3
Never Married (%)	93.9
Household Status (%)	
Head of Household	7.9
Living in Two-Parent Household	14.5
School Status	
Out of School at Enrollment (%)	59.1
Percent Out of School Who Left School before Pregnancy (%)	49.9
Mean Number of Months Out of School	13.4
Mean Highest Grade Completed	8.9
Receiving AFDC (%)	71.6
Receipt of Services before Redirection (%)	
Employment	2.9
Family Planning	21.9
Prenatal Care (If Pregnant)	95.9
Pediatric Care (If Parents)	87.1
Total Number of Teens Enrolled	805

SOURCE: Branch et al., 1984, Table 2.1.

ment. Two teens were frequently abused by their boyfriends, and one may have been involved in prostitution. Alcoholism and drug use were common in the homes of a significant minority of these teens and in the homes of their parents; and, even when families were more sustaining and supportive, Redirection participants were caught in the turbulence that affects all adolescents as they grow up.

Adolescence in American society is a period of transition, when young people try out new, more grown-up roles without, however, shedding the dependence of childhood. As teens seek the freedom and status of adulthood, they do not necessarily want to shoulder the concomitant responsibilities, including planning for the future.

Findings from the ethnographic analysis suggest that for the pregnant and parenting teens in Project Redirection, childbearing exacerbated this status confusion, and their very youth (two-thirds were age 16 or younger) heightened their dilemma. While few of the Redirection teens had wanted to become pregnant, many anticipated that bearing a child would produce desired changes — more solid relationships with boyfriends and greater autonomy, for example. Yet, these changes were often not forthcoming.

Role confusion increased when the new baby became a source of tension between teens and their families. While most of the mothers of Redirection teens were angry and disappointed when they first learned that their daughters were pregnant, the breach was usually healed before delivery. There were, however, subsequent conflicts on such issues as whether the mother or daughter was chiefly responsible for the baby's care, or whether the mother could restrict her daughter's activities. And, even as the teens resented maternal authority, they were often happy to escape the burdens of motherhood.

Poverty was a hardship that all Redirection teens and their families shared. Their mothers frequently were unemployed or held low-paying jobs. The households in which they lived were often crowded, and the teens lacked privacy. Like other poor youths, the teens who came to

CASE STUDY

No Project Redirection teen is typical and efforts to generalize are difficult. The case studies highlighted in this monograph suggest the range of family backgrounds, support systems, attitudes, and behavioral patterns that teens brought to Project Redirection and the different ways in which they responded to the program. All names are pseudonyms.

Malena is an 18-year-old mother of two children, born a year apart, and fathered by two different young men. When the first left her during her pregnancy, she immediately developed a new relationship with the father of the second child. Both were verbally and physically abusive, but she "went steady" with each. Currently, she is separated from the second young man, believing he was unfaithful to her. She consequently does not allow him to see his baby, and she does not want to marry him.

Malena says she has been taking birth control pills since she was 13 years old. While understanding that they must be taken properly, she also believes that even "if you take the pill right, you can have a pill baby if you have sex." Malena talks about having her tubes tied. She thinks that this is reversible.

Malena has lived with her sister and on her own. She was raised by her mother, who has never been employed but has raised a large family. The home situation has often been very troubled; there have been siblings who died accidentally, and others who were put into child custody during their early years. Malena herself has no employment experience or aspirations. She is almost illiterate and has difficulty dealing with the welfare system.

During her early days in Redirection, Malena established a good relationship with her community woman, who helped her with the welfare system and encouraged her to attend Redirection workshops. However, she stopped going to them regularly as her personal problems intensified. Finally, she left home, and the program's contact with her ceased.

Project Redirection saw good employment opportunities as largely beyond their reach and schools as unresponsive to their needs. Clearly, "redirecting" these young women was a formidable task.

The Program Treatment

The Program Ethos. The Redirection treatment is best seen as a mix of messages, relationships, and services. Many of the messages program staff and community women communicated to teens were straightforward:

- You need good medical care for yourself and your child.
- You have to stay in school and obtain a diploma to get a good job.
- Working is the key to a better life for you and your children.
- If you have another baby too soon, it will be harder to reach your [Redirection] goals, so you should use birth control when you have sex.
- You need to learn how to feed, clothe, and care for your baby and to know what to expect as he or she grows into a toddler.
- You should get what you want and need from your relationship with your boyfriend.

But, there was also an implicit message that staff and community women considered primary:

- You are a good and worthwhile person.

Staff at all sites were convinced that, above all, the teens needed to increase their self-esteem. They saw this as a precondition both for immediate service use and for ultimate self-sufficiency. A leading priority, therefore, was to create a warm and welcoming environment that was supportive and nonjudgmental, so that teens would be encouraged to confide in others. The teens would then come to recognize, staff believed, that their problems were not insurmountable.

The Redirection model posits that these messages can be reinforced by the teens' interactions with one another, as well as with community women and program staff. All participants were regularly scheduled for peer group sessions in which teens discussed their experiences and problems and helped each other in areas they considered important — typically, relationships. The meetings were also a forum in which staff could emphasize program goals and suggest how to achieve them. And, especially in the more geographically extensive sites, these sessions were also a valuable antidote to the isolation from their former friends and classmates that motherhood often imposed on these teens.

The Community Woman Component. A key modality of service provision in Project Redirection was the community woman component. Of all the program features, it most clearly distinguishes Redirection from other programs for pregnant and parenting teens. The community women, each of whom was matched with between one and five teens, performed many functions in Project Redirection. They served as the teens' friends and confidantes; reinforced the program's messages; monitored teens' scheduled activities; relayed problems and progress back to staff; and taught participants, by their own example, how to be effective parents and to cope with the problems of everyday life.

The concept of the community woman evolved from a small, grass-roots program in Brooklyn, New York, in which low-income women volunteered to assist teenagers through one-to-one relationships. It was unclear, however, whether this voluntary model could be institutionalized and integrated into a multiservice approach. For example, would enough women join the new program? And if so, what types of women would be most effective? The answer to the first question appears to be "yes." The answer to the second question is that no one type of community woman can be clearly identified as successful.

Community women were recruited from many sources, including local organizations and churches; about one-third came on the referral of a friend. They offered their time to Redirection for many reasons. Some had been teenage mothers themselves and wanted to provide other young mothers with opportunities they

had lacked. Other women wanted to learn more about their own children, and still others simply hoped to alleviate a major problem in their community.

Community women were required to spend at least five hours a week with each teen, but they often spent more. For this, they received a weekly stipend of $15 per teen to defray the expenses — including transportation — incurred during the program. Few community women said that this stipend was responsible for their participation. Nonetheless, while the stipend may not have been a necessary program feature, it probably enabled many low-income women to take part in the program on an equal basis with others and to treat the teens assigned to them to an occasional lunch, movie, or present.

Both across and within the sites, the community women were a diverse group. While usually paired with teens from the same ethnic background, they ranged in age from their early twenties to their late seventies. Half the women were married and living with their spouses; about one in seven had never married; the remainder were divorced, separated, or widowed. Five out of six had at least a high school diploma or its equivalent. Most were not working when they joined the program; and across the sites, just over one-quarter were receiving welfare.

Program planners and local operators considered careful training and supervision critical to the success of the component. Before they were matched with teens, community women received several days' training on such different topics as their attitudes toward teen pregnancy and parenthood, the needs of teenage mothers and available social services, communication skills, and documentation procedures. These sessions allowed staff to observe the women and to dismiss those who appeared inappropriate. The training sessions also permitted women who decided that the position was not right for them to leave gracefully.

During the demonstration, periodic in-service training sessions were held to sharpen skills and allow the community women to share problems and solutions. Pairing new community women with more experienced colleagues was also a useful training technique.

Experience has allayed doubts about whether welfare recipients and professional women can be effective community women. An impartial approach and the ability to communicate with the teens and understand their concerns seem to be the most important criteria for forming close relationships with them.

Predictably, the quality of the relationships varied with personalities and circumstances, but most participants regarded the community woman component favorably. In interviews held after teens had left the program, most teens said their community woman was "very important" or "important." Teens generally mentioned how nice these women were, how easy they were to talk to, how they took them to various places, and how helpful their advice and concrete assistance were. The relationship was often particularly close when teens became estranged from their families; for these teens, the community woman sometimes became a surrogate mother. However, some teens felt that their community woman was either too distant or unduly prying. In fact, alienation from her community woman was a major source of a teen's dissatisfaction with the program.

The community women also played a salient role in extending staff capacity beyond the program's confines. In regular meetings with staff members, the women reported their observations of how the teens were faring and discussed problems and the strategies for handling them.

While the community woman concept has been both feasible and useful for Project Redirection, its smooth operation cannot be taken for granted. High turnover, common among volunteer programs, also characterized Project Redirection: Only 22 percent of the community women ever enrolled were still active at the end of 1982. Turnover not only made it difficult to find replacements, but the teens found it hard to transfer their confidence and affection from one community woman to another.

Turnover was eased, however, when staff realized that community women joined the program to meet some of their own needs as well as those of the teens. Setting up committees of community women, giving them an opportunity and a

place to socialize, providing them with rewards and recognition — all increased commitment to the program. Thus, a warm, supportive atmosphere may be as important for developing a strong community woman component as it is for assisting the teens.

Service Delivery: Individualization and Brokerage. From its inception, the guidelines under which Project Redirection operated made it clear that the program was not merely to counsel teens, but to arrange for, coordinate, and monitor the delivery of a concrete, structured set of services. Four areas were most important: health; education; employment and employability development; and "life management," a rubric that includes activities as diverse as nutrition, child-rearing, family planning, budgeting, and assertiveness training. Recreational activities, transportation, and childcare services were also available, although childcare was infrequently used since most teens preferred and received such assistance from their families.

Teens also received a $30 monthly stipend as an incentive for participation. During the second year of the demonstration, the sites, at MDRC's urging, tied the stipend to participation: Full or partial deductions were made for unsatisfactory attendance in any or all of the components. It is difficult to say, however, whether this improved participation.

While the program guidelines dictated that all teens were to receive services in each of the four major areas, they also recognized the importance of focusing on each teen's needs — her age, school status, support system, goals, strengths, and deficiencies. The Individual Participant Plan, or the IPP, provided the framework for this assistance. The IPP was a planning and monitoring tool — drafted jointly by the teen, her community woman, and a program staff member — that specified each participant's short- and long-term objectives in each area, as well as a variety of services and activities to help her attain them. For example, under "Education," the IPP listed whether the teen would attend a regular or alternative school, or a GED program, or would participate in another educational activity.

After the initial agreement, an IPP worksheet was compiled each month for the activities in which the teen was scheduled to engage. The teen's participation was monitored by staff and her community woman, who, because of her more frequent contact, played the lead role. The IPP was revised periodically to respond to new circumstances, achievements, and needs.

The mandate initially handed down to the sponsoring agencies was that they should avoid duplicating services already available in the communities. Instead, they were to act as "brokers" — bringing together, coordinating, and monitoring for participants those services already available in the community. Only the services necessary to fill gaps were to be provided directly. Brokerage could entail either referring teens to other agencies or inviting these agencies to conduct workshops at the Redirection sites.

The brokerage model also made it possible to contain the direct cost of operating the program. Across the sites this cost averaged $3,540 per participant, or $3,890 per service year, which represents the cost of maintaining a participant in the program for a full year. Approximately one-quarter of this sum defrayed the costs of stipends for teens and community women, while the remainder was used for program management (including planning, administering, and reporting on the program) and for direct services to the participants. These service costs are partial in the sense that they reflect only costs borne by the sponsoring agency, not those of the outside agencies providing the brokered services.

While this model worked reasonably well for some services (medical care, for instance), two limitations eventually became clear. First, since appropriate employability services were more difficult to locate than had been anticipated, particularly for younger teens, the programs themselves had to organize and provide many of these services. Community resources also fell short of meeting certain teens' educational needs. Some teens, for example, refused to return to public schools, but were too young to attend GED preparation. Others were slow learners who needed special assistance. Some spoke only limited English, and bilingual education was not available. Several sites conse-

quently organized tutoring programs, and one even developed an on-site, pre-GED class in conjunction with the public school system.

Monitoring was the second problem with a brokerage model. To ensure appropriate and high-quality services, monitoring should occur in the outside agencies; however, this is both difficult to arrange and time-consuming to carry out. Redirection staff and community women generally had to rely on the teens' comments about how they were treated by the agencies to which they were referred. These comments and reports by outside observers suggest that, while some services were informative and engaged the teens' interest, other services were less engaging. On the whole, staff might have spent more time ensuring not only that teens participated in specific services, but that these services were worthwhile.

Patterns of Participation and Service Receipt

Several questions were key to the research examining participants' responses to the specific activities offered in Project Redirection. To what extent did teens participate in the services prescribed by the program guidelines? How did they like the program? How long did they remain in it? And why did they leave?

It is useful to think of the teens' participation in program activities as having two separate phases. First, staff decided to schedule participants for certain activities; and second, teens — once scheduled — decided to participate. Scheduling decisions depended on several factors: the availability of the service; each teen's needs and preferences; and the priority that staff attached to alternative activities. Participation decisions reflected different factors: what teens enjoyed; what they found useful; and what they found convenient to attend.

At the outset of the demonstration, start-up problems caused some teens not to be scheduled for services until they had already been in the program for months. Moreover, the program sponsors tended to give priority to providing services with which they were most familiar. Because of the staffs' social services backgrounds and their difficulty in finding appropri-

CASE STUDY

Peggy is a 15-year-old mother of a six-month-old baby. She lives with her mother, stepfather, and siblings. She has always been close to her mother, but she is hostile to her stepfather, and although her biological father lives nearby, Peggy has had limited contact with him over the years.

Peggy feels that she was never very successful in school. Following a history of truancy, she withdrew during her sophomore year when she became pregnant. Subsequently, she enrolled in a continuation school and Project Redirection and became committed to completing high school. She is worried, however, about what she considers her excessive home responsibilities that keep her from advancing at the pace she would like.

Peggy met her boyfriend when she was 13 and still continues to see him. Because she wants to both finish high school and maintain her relationship with her boyfriend, she is conscientious about taking birth control pills. Her association with Project Redirection has also enabled her to focus on long-term goals, and she has gradually come to believe that economic independence, even within the context of marriage, is important. At present, however, she has no specific career plans.

Peggy did not use birth control before she became pregnant, believing "it could not happen to me." She considered an abortion, which her mother also encouraged, but she said she could not raise enough money to pay for one.

Currently, Peggy's major problems center on her new conflict with her mother over control of her own life and that of her baby. They are in constant competition over taking care of the baby, and Peggy's mother also looks to undercut and stifle her relationship with the baby's father. For these reasons, Peggy is turning to Project Redirection for guidance and support.

ate employment services, employment activities were initially slighted.

Midway through the demonstration, more stringent guidelines were issued to ensure that all participants expeditiously received what planners deemed adequate services in every program area. Thus, for example, all teens were to be enrolled in an educational program within 60 days of program entry. They were to receive family planning services immediately on joining the program, or, if they were already pregnant, as soon as possible after delivery. More comprehensive scheduling and receipt of services became a priority.

Figure 1 shows how successfully this objective was achieved once the program reached full operational maturity. Each bar in the figure shows two performance measures: the proportion of participants ever scheduled for a given service, and the proportion of teens who actually participated in them.

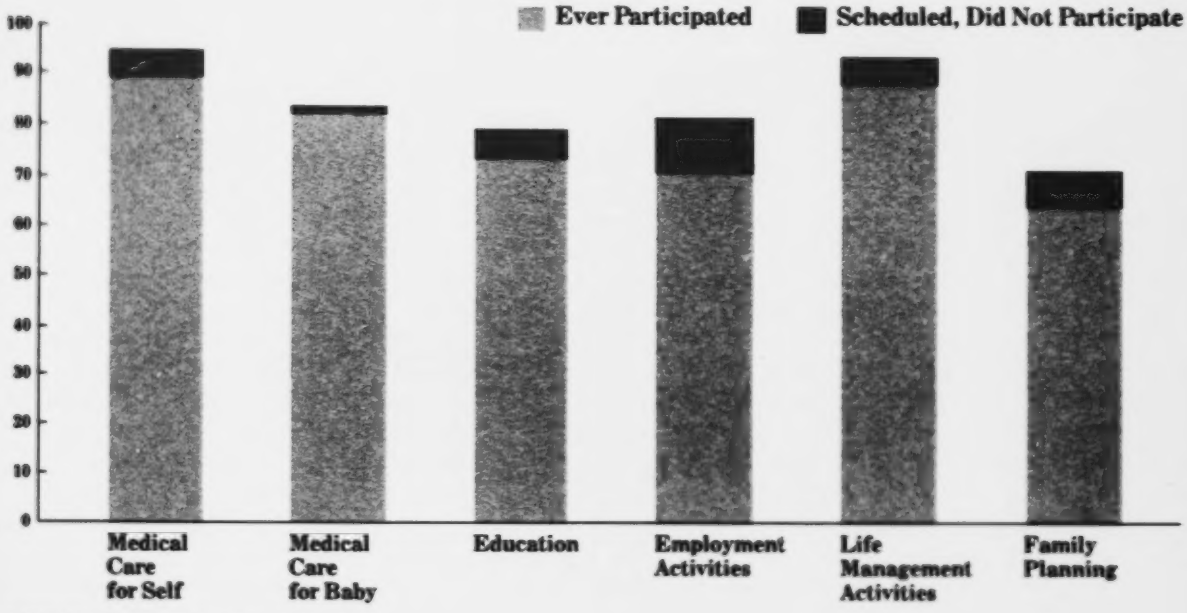
Staff attached the greatest importance to ensuring that teens, most of whom were already receiving medical care at program entry, continued to receive good care. Education was also a strong priority at every site except Boston, where staff felt that the public school system could not accommodate the needs of the Spanish-speaking group they had enrolled. Across all sites, 80 percent of the teens were scheduled for educational activities, and 74 percent attended at least some sessions.

However, teens generally preferred alternative schools to regular schools. The smaller classes and more pertinent curricula in the alternative schools offered many teens a fresh start, particularly since most associated regular classrooms with academic and personal failure. Counseling on educational options was also an important staff activity, and teens on average attended six such sessions during their stay in the program.

In general, staff believed that teens should finish high school before seeking full-time jobs. This reflected both their philosophical convictions and their awareness that employment

FIGURE 1

Scheduling and Use of Project Redirection Services



SOURCE: Branch et al., 1984, Table 5.1.

opportunities for teenagers, especially high school dropouts, were limited. Activities related to employability therefore tended to focus on what teens would need to know about their future work lives, usually offered through individual vocational counseling, and group workshops on possible careers and on how to get and keep a job. Over 80 percent of program enrollees were scheduled for these activities, and about 70 percent received them. The sites also helped interested teens with job placement; about a fifth of all enrollees found employment, most often in part-time summer jobs.

Of all the sites, Phoenix developed the most comprehensive set of employability services. Funding from the state of Arizona helped the site establish an employment and training component for young women, aged 17 to 19, many of whom could be Redirection enrollees. (Assignment to the employability component was used to reward participation in other Redirection activities.) After a week-long introduction to the world of work and an assessment of skills and interests, teens in Phoenix were scheduled for an average of 20 weeks of full-time skills training at one of four training centers.

Indicative of staff members' backgrounds and the importance they attached to social and emotional growth is that almost all teens in all the sites were scheduled for and participated in life-management activities. Staff emphasized parenting education that focused on child development and child-rearing, and enrollees found this component especially enjoyable and valuable. Parenting instruction was a standard course for enrollees attending special schools for teen mothers and was covered in program workshops as well. Community women, teaching primarily by example, were also an important resource for communicating parenting skills.

In contrast, the family planning message initially conveyed in the program workshops was often indirect. At the outset of the demonstration, staff and community women were reluctant to confront teens on such personal subjects as sexuality and birth control practices.

Staff became more forceful and direct, however, after many repeat pregnancies were reported. Still, fewer than two-thirds of all participants took part in sessions in which they were specifically instructed on contraception and the place of sexuality in relationships. While these figures may understate the amount of informal instruction that took place in peer group sessions and conversations with community women, staff should have developed a more comprehensive approach for these services.

While these statistics are useful for determining the percentage of teens who "ever received" a service, they do not convey the regularity (or irregularity) with which teens attended scheduled activities. Participation varied considerably by the type of activity; teens were, for example, extremely conscientious in keeping medical appointments for themselves or their children. However, school absenteeism was a significant problem. Teens enrolled in both regular and alternative schools attended only about three-quarters of the time; among teens enrolled in GED programs, the attendance rate was only 50 percent. Teens also went to their employability and certain life-management sessions only about two-thirds of the time.

The picture of service receipt is therefore mixed. On the positive side, the majority of teens were scheduled for and received services in all major areas. But, they did not always attend these services consistently, nor, as noted earlier, could the quality of these services always be assured.

On the whole, the teens liked Project Redirection. Eighty-nine percent of those interviewed as part of the impact analysis reported being either very or fairly satisfied with the program, and about half said that it had helped them in many ways. Parenting education was perceived as the single most useful component and was mentioned by about one-third of the teens questioned. A sizable percentage also considered the community women, employability workshops, education activities, and personal counseling helpful.

If teens valued Project Redirection and its services, why did their participation tend to be sporadic? Predictable problems such as illness, scheduling conflicts, and inadequate public transportation were part of the reason. And like other low-income mothers, teens in Project Redirection had few external resources to fall

back on if their babies became sick or childcare arrangements fell through.

Moreover, since Project Redirection sought to play a major role in these teenagers' lives, it demanded a great deal of participants at a time when they were making the radical adjustment from adolescence to adult status and new or impending motherhood. The benefits of the program — frequent interaction with caring adults and improved access to services — could be greatest for teens with the fewest social supports, but so, too, could the burdens that participation placed on them. Finally, the seriousness of the problems that some teens brought to the program — family crises, housing crises, abuse — cannot be understated.

A reasonable conclusion is that teens, facing many demands on their time and emotional energies, tended to use the program on an as-needed basis. They participated in activities and interacted with staff and community women for as long as they found these services and relationships enjoyable and helpful, and for as long as their complicated lives permitted.

Findings on length of stay are also informative. At the outset, no limits were placed on how long teens could remain in Project Redirection. Because program planners worried that this policy would produce long-term dependency on the program and staff — and also because they wanted to serve more youths — a limit of 18 months was imposed. Teens were also to be terminated from the program at age 19, or when they received a high school or equivalency diploma. Although most teens were unaffected by the new ruling (the average tenure in the program was 11.6 months, and about one-quarter of the enrollees left within six months), about 11 percent had to leave for this reason.

Aside from these mandatory exit criteria, the 637 teens who were terminated by December 31, 1982, left either at their own or the staffs' instigation for varied reasons: failure to meet program requirements (39 percent); loss of contact (14 percent); a determination that the teen no longer needed the program (11 percent); dissatisfaction with the program (4 percent); and miscellaneous other reasons. But all these reasons were often nominal and do not get at the underlying causes. For example, family crises could lead teens to drift away and be terminated for loss of contact or failure to meet the requirements. While most community women and staff members tried to reach out to teens in such crises, this did not always happen or succeed, sometimes because the teens simply could not be located.

In summary, in considering the implementation and operation of Project Redirection, the basic fact remains that the participants were highly disadvantaged teens, whose lives had been scarred by poverty as well as by premature parenthood. These young people had limited visions of what they could achieve and limited resources for reaching their goals. Project Redirection sought to inspire and assist them in using the services it offered to effect lasting behavioral change. The program's success in achieving these objectives is considered in the following sections.

The Impact Analysis

Research Methodology

To assess the effects of participation in Project Redirection, the demonstration included a rigorous impact analysis designed to avoid most of the shortcomings of other evaluations of teen parent programs, such as the use of very small samples, the lack of a comparison group to estimate what the experiences of teens would have been without the program, the failure to track participants after they left the program, and inadequate length of follow-up.

By contrast, the Redirection impact analysis is based on interviews with several hundred young mothers over a five-year period. Teens who participated in the Redirection program ("experimental teens") as well as teens who did not ("comparison teens") were interviewed. Altogether, four rounds of interviews were conducted: at "baseline" (i.e., when teens were enrolled in either Project Redirection or the comparison group sample), and then one, two, and five years later. Nearly 700 young mothers were interviewed in the first three rounds.[10] At the five-year follow-up, completed in 1987, a subsample of nearly 300 young mothers, who

were then on average nearly 22 years old, was re-interviewed.[11]

The intent of the impact evaluation was to compare teens who participated in Redirection with a group of teens similar in all respects except that they had not received the extensive, coordinated services that the Redirection recipients received. The preferred approach for Project Redirection would have been an experimental design, in which applicants were randomly assigned either to the program or to a control group. Random assignment is the most reliable procedure for ensuring the comparability of two groups. This method was not considered feasible in the Redirection demonstration, however, primarily because there did not appear to be sufficient time for the sites to recruit enough teens for both the participant and control group samples. While there was no shortage of pregnant and parenting adolescents, the limited geographical area that each program could realistically serve, in combination with the demonstration's eligibility criteria, restricted the number of potential applicants. In particular, the fact that the program served only those aged 17 or younger limited the number of teens in the program's service area who were eligible for Redirection.

Quasi-Experimental Design. As an alternative to random assignment, the study adopted a quasi-experimental design in which the comparison group consisted of teens who met the Redirection eligibility requirements but lived in cities not offering the Redirection program. At the time they were chosen, the cities (or areas within cities) selected for comparison were similar to those in which Redirection operated in demographic, economic, and geographical terms and in the types of services available for disadvantaged young mothers. Thus, Hartford was paired with Boston; Bedford-Stuyvesant in New York City with Harlem; San Antonio with Phoenix; and Fresno, California with Riverside, California.

This strategy yielded a close match between the experimental and comparison groups on most background characteristics. Nevertheless, this type of quasi-experimental design leads to inevitable uncertainties about whether the two groups are truly comparable.[12]

Service Receipt. A second analytic concern is that the comparison teens received many more services, and many of them also apparently had longer contact with the agencies from which they were recruited, than had been anticipated. For example, 43 percent of these teens were enrolled in a special teen parent program after they entered the research sample. As Figure 2 shows, in the year after baseline, 40 percent of the comparison group had attended parenting classes; 92 percent had received medical care for their babies; 63 percent had received birth control counseling; and 45 percent had taken part in employment-related activities. This relatively high level of service receipt may have resulted from the nationwide increase in services for pregnant and parenting adolescents, a growth that occurred during the demonstration as concern mounted over the high rates of adolescent childbearing.

Nonetheless, Figure 2 also shows that experimental teens maintained an advantage in the amount of services they received, particularly through the one-year interview, which covers the period when most experimentals were still taking part in Project Redirection. That advantage continued — though at a substantially reduced level — during the second year of follow-up, but only for experimental teens enrolled in Project Redirection for longer than one year. Together these data suggest that departure from the program was associated with a sharp decline in service receipt; indeed, teens no longer in the program show a pattern of service use similar to that of comparison teens.

These findings are important for interpreting the impact evaluation. They mean that the results do not show the effectiveness of Project Redirection compared to what would have occurred without services; instead, the results indicate the incremental effects of Project Redirection over and above an alternative array of services — that is, the various services received by the comparison group, which were less intensive and presumably more fragmented than those received by Redirection participants.

Five-Year Subsample. A third issue relating to the analyses is that the five-year interviews were not conducted with all of the young women in the original research sample. Consequently,

trends over time may reflect changes in the sample rather than actual changes in behavior. Further analysis suggests that this is not a serious problem.[13] However, the use of a smaller sample at the five-year point does mean that larger differences between the experimental and comparison groups were needed for them to be determined to be statistically significant.[14]

In summary, certain features of the impact analysis indicate that caution should be used in interpreting the results. Nevertheless, the Redirection evaluation provides important insights into the long-term effects of comprehensive programs for disadvantaged teen mothers.

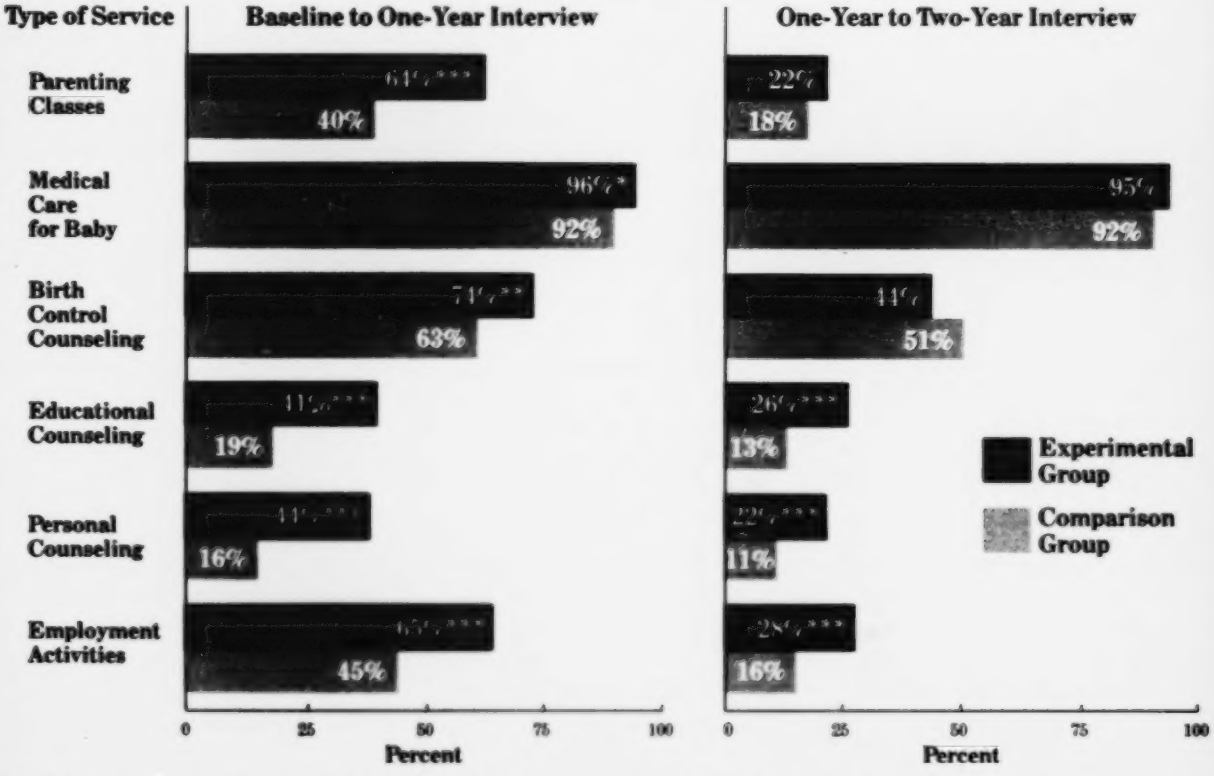
Description of the Five-Year Subsample

The remainder of this monograph describes the findings from the analyses in which experimental and comparison group teens were compared. This section provides a context for understanding those findings by describing the circumstances and characteristics of the sample as a whole at the time of the five-year follow-up interview.

Over the five years since the young mothers were first interviewed, many aspects of their lives had changed substantially. At baseline, only a handful of these women had been married, and 75 percent were living with their

FIGURE 2

Percentage of Experimental and Comparison Group Members Receiving Selected Services since Program Start-Up



SOURCE: Impact analysis interviews with experimental and comparison group teens at one and two years after program start-up.

NOTES: *Denotes statistical significance at the .05 level; **at the .01 level; and ***at the .001 level.

mothers. Five years later, at age 22, about one-fourth of the women were married, and nearly 40 percent had been married at some point (most of these marriages were to the father of the woman's first child). Only 25 percent of the women were still living with their mothers, although nearly 60 percent said that they had daily contact with their mothers or other family members.

Education and Economic Well-Being. The percentage of women who had received a diploma or GED certificate had increased from zero at baseline to almost 50 percent at the five-year interview. Nearly 20 percent were enrolled in a school program at the five-year follow-up, but these were mostly women who had finished their basic schooling and had gone on to either a postsecondary or a training program. Only a handful of women were working toward their equivalency certificate.

Nearly one-third of the women were working at the five-year interview. Most of them were employed full-time, for an average hourly wage of about $5. Nearly 40 percent of those who were working had worked for the entire 52 weeks prior to the interview. Fifty-five percent of the sample had been employed at some point during the previous 12 months, and most of those who were not employed were seeking jobs.

The economic situations of these women were quite varied, although the majority lived in poverty. At the five-year follow-up, nearly 30 percent lived in households with total monthly incomes of under $500, but nearly one out of five lived in households with incomes in excess of $1,250 per month. The presence of a husband or a male partner had a big effect on the women's financial circumstances: Such households had average monthly incomes of $961, compared to $636 for households without a spouse or male partner. Although the percentage of women who received AFDC benefits had declined — from 70 percent at baseline to 55 percent at the five-year interview — most women continued to rely on various forms of public assistance. The average monthly income for households that received AFDC benefits was $634, compared to an average monthly income of $880 for households not getting welfare benefits.

Childrearing and Parenting. By their early twenties, the women had given birth to 2.1 children, on average, and had had about three pregnancies. About 30 percent of the sample had had three or more children. At the most recent interview, most of the women said they expected to have no more children, and almost all said they practiced some form of birth control. Nearly one-third of the sample had had at least one abortion.

Parenting appeared to be an important and rewarding part of these young women's lives, and only a few regreted that they had had children. Although the majority wished they had postponed childbearing, most also felt that they were doing fairly well as mothers. Their major concern as parents was not having enough money to buy their children the things they wanted and needed, including better housing.

In summary, a substantial number of these young women had made some progress over the five-year period in terms of obtaining educational credentials, finding employment, and leaving the welfare rolls. Nevertheless, most of these young mothers continued to lead lives characterized by poverty and hardship.

Impact Results

The pattern of findings over the five-year study period was uneven, but nonetheless offers considerable encouragement. At the one-year point, the results suggested that participation in Project Redirection resulted in improvements in education, employment, and fertility. However, by the two-year point, many of the favorable results had disappeared, which led the evaluators to conclude that the program impacts had been largely transitory. Yet at the five-year point, the young mothers who had participated in the Redirection program had better outcomes than the comparison group in terms of employment and welfare dependency. Moreover, they appeared to be more competent parents, and their children were at a developmental advantage compared to those of women in the comparison group.

The discussion that follows summarizes the one-, two-, and five-year results in five areas:

education; employment and earnings; welfare dependency; childbearing; and parenting and child development (for the fifth year only). Unless otherwise noted, the differences between the experimental and comparison group members mentioned here are statistically significant.

Education Results. In the short run, Project Redirection teens had better educational outcomes than comparison teens. One year after baseline, 56 percent of the experimental teens were enrolled either in school or a GED program or had completed their basic education (that is, had obtained a diploma or GED certifi-

TABLE 2

Selected Educational, Employment, and Welfare Dependency Impacts of Project Redirection at One Year, Two Years, and Five Years after Baseline

Outcome	Project Redirection Group	Comparison Group	Difference
Education			
Percent in School/Completed at One Year	56	49	7*
Percent in School/Completed at Two Years	43	43	0
Percent in School/Completed at Five Years	54	55	−1
Percent with Diploma/GED Certificate at One Year	9	7	2
Percent with Diploma/GED Certificate at Two Years	20	20	0
Percent with Diploma/GED Certificate at Five Years	48	48	0
Employment			
Percent Employed at One Year	14	12	2
Percent Employed at Two Years	15	15	0
Percent Employed at Five Years	34	28	6
Percent Ever Employed between Baseline and One Year after Baseline	49	38	11**
Percent Ever Employed between Baseline and Two Years after Baseline	61	54	7+
Mean Weekly Hours Worked at Five Years	13	9	4+
Mean Weekly Earnings at Five Years	$68	$45	$23+
Mean Household Income at Five Years	$737	$756	−$19
Welfare Dependence			
Percent Receiving AFDC Benefits at One Year	70	70	0
Percent Receiving AFDC Benefits at Two Years	75	68	7+
Percent Receiving AFDC Benefits at Five Years	49	59	−10+

SOURCE: Polit and White, 1988.

NOTES: The impacts at one and two years after baseline are based on analyses with the full research sample (675 young mothers). The five-year impacts are based on analyses with the five-year subsample (277 mothers).

+ denotes statistical significance at the .10 level; * at the .05 level; and ** at the .01 level. The figures shown have been statistically adjusted for important baseline characteristics.

cate); the same was true for only 49 percent of the comparison teens. (See Table 2.) In the full year between the baseline and the one-year interviews, 75 percent of the experimental teens and only 51 percent of the comparison teens had been enrolled in an educational program. Thus, it appears that Redirection did encourage young mothers either to return to or stay in school, at least while they were enrolled in the program.

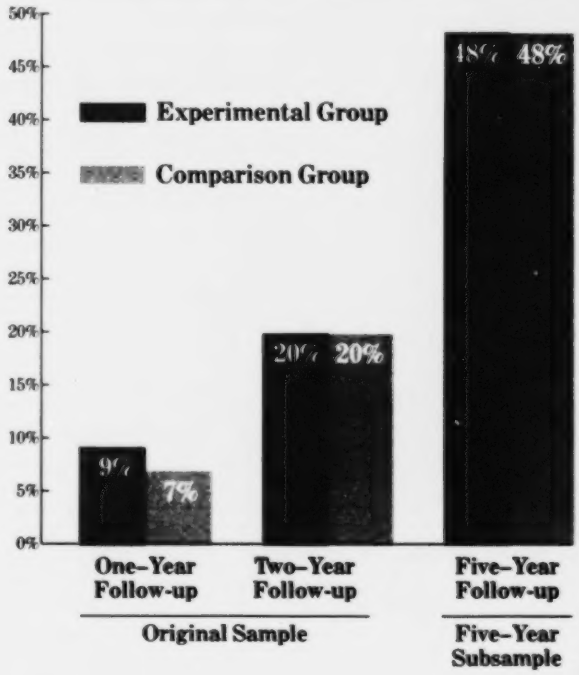
Despite this, however, most of the experimental group's advantages in schooling had disappeared by the two-year interview: At that point, 43 percent of both groups of young women were either in school or had completed it. Five years after baseline, the two groups were also similar: Just over half of both experimental and comparison group members had either completed their basic schooling or were enrolled in an educational program.

Figure 3 shows the percentages of young women who had obtained their diplomas or equivalency certificates at the three follow-up interviews. The percentages steadily increased from about 8 percent at the one-year follow-up, to 20 percent at the two-year follow-up, to 48 percent at the five-year follow-up. At each point the experimental and comparison group members had similar rates of school completion. Thus, participation in the Redirection program does not appear to have had any effects on the young mothers' educational attainment.

Employment Results. At the first two follow-up interviews, relatively few women in the sample were employed, which is not surprising given their young age. Differences between the Redirection participants and the comparison group teens in employment rates at these two points were small. As shown in Figure 4, at the one-year interview, only about 13 percent of teens in both groups were employed, and at the two-year interview only 15 percent. Nevertheless, there were some early indications that the Redirection program did help participants get paying jobs. For example, 49 percent of the experimental group — but only 38 percent of the comparison group — had worked for pay at some point between enrollment and the one-year interview, typically in summer jobs. This experimental advantage was maintained

FIGURE 3

Percentage of Experimental and Comparison Group Members with a High School Diploma or GED Certificate at the One–, Two–, and Five–Year Follow-Up Interviews



between baseline and the two-year interview. During those two years, 61 percent of the experimentals had held at least one paying job, versus 54 percent of the comparison group.

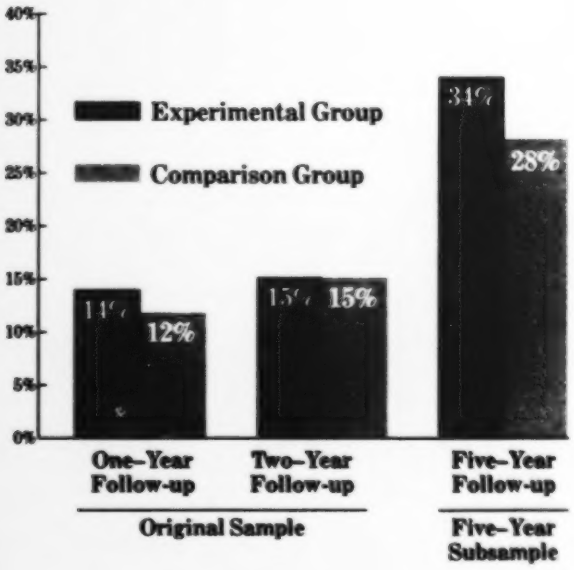
In addition to having accumulated more experience in paid jobs during the first two years of the study, the Redirection participants also benefited in other ways. For example, the young women in the experimental group had higher scores than those in the comparison group on a test that measured employability knowledge at the two-year interview (as well as higher scores on a measure of self-esteem). There were also differences between the two groups when their educational and employment situations were considered simultaneously: Seventy-four percent of the Redirection teens were in a positive activity (defined as either being in school or having completed it, or being employed or looking for work) at the two-year point, compared with

65 percent of the comparison teens. However, this difference is largely attributable to a higher percentage of experimental teens who were looking for work.

At the five-year point, there were several important differences in employment. More of the experimental group women (34 percent) than comparison group women (28 percent) were employed; this difference narrowly missed being statistically significant. However, for the sample as a whole, the women in the experimental group worked 13 hours per week on average, versus nine hours for the comparison group. The experimental group also had higher weekly earnings: $68 per week, compared to $45 for the comparison group women. It should be noted that these averages are for the entire sample, including those women who did not work at all and had no earnings. Despite the higher average earnings from employment among the experimental group women at the five-year follow-up, their total household income was about the same as that for women in the comparison group.

FIGURE 4

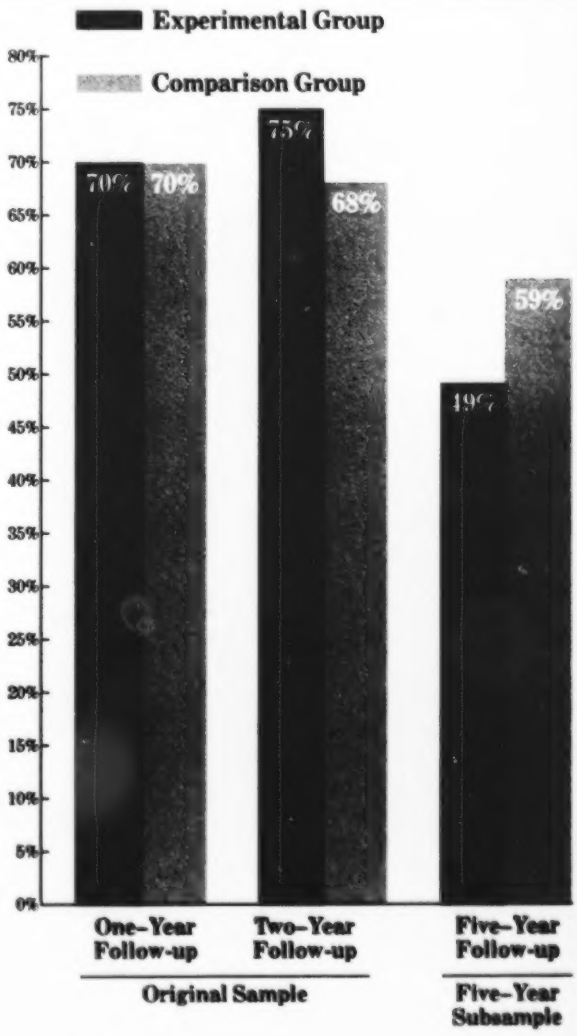
Percentage of Experimental and Comparison Group Members Employed at the One–, Two–, and Five–Year Follow-Up Interviews



Welfare Receipt Results. Figure 5 shows that at the one-year follow-up, the experimental and comparison groups were equally likely to live in households receiving welfare, but at the two-year point the experimental group members were actually more likely to do so. However, at the five-year point, the situation was reversed, presumably reflecting the experimental group's

FIGURE 5

Percentage of Experimental and Comparison Group Members Receiving AFDC Benefits at the One–, Two–, and Five–Year Follow-Up Interviews



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greater involvement in the labor force. At the five-year follow-up, 49 percent of the former Redirection participants and 59 percent of the comparison group women were living in households in which someone was receiving AFDC — a full 10 percentage point difference.

Thus, five years after enrollment, the women who had participated in Redirection were more likely than comparison group women to work more hours, to have higher weekly earnings from employment, and to be less dependent on welfare. Nevertheless, a high percentage of the women in both groups were receiving AFDC in their early twenties, and only a minority were working for pay.

Childbearing Results. Table 3 shows that Redirection teens were less likely than comparison teens to have a repeat pregnancy during the first year after enrollment (14 percent versus 22 percent). However, between baseline and the two-year follow-up, the rate of repeat pregnancy had climbed dramatically in both groups, to 45 percent and 49 percent, respectively. The difference between the two rates was no longer statistically significant.

At the five-year interview, the women in both groups had had an average of about three pregnancies. However, there were differences in the dispositions of those pregnancies. Even after taking into consideration the women's prebase-

TABLE 3

Selected Childbearing, Parenting, and Child Development Impacts of Project Redirection at One Year, Two Years, and Five Years after Baseline

Outcome	Project Redirection Group	Comparison Group	Difference
Childbearing			
Percent with a Subsequent Pregnancy by One Year after Baseline	14	22	−8*
Percent with a Subsequent Pregnancy by Two Years after Baseline	45	49	−4
Mean Number of Pregnancies at Five Years	3.1	2.9	0.2
Mean Number of Abortions at Five Years	0.3	0.5	−0.2*
Mean Number of Live Births at Five Years	2.4	2.0	0.4**
Parenting/Child Development			
Mean Home Environment Score at Five Years	44	40	4***
Percent Who Had Enrolled a Child in Head Start by Five Years after Baseline	47	34	13*
Percent Who Breastfed Child (Pregnant–at–Baseline Group)	50	20	30***
Child's Mean Vocabulary Score at Five Years	86	80	6**
Child's Mean Problem Behavior Score at Five Years	92	105	−13*

SOURCE: Polit and White, 1988.

NOTES: The impacts at one and two years after baseline are based on analyses with the full research sample (675 young mothers). The five-year impacts are based on analyses with the five-year subsample (277 mothers).

* denotes statistical significance at the .05 level; ** at the .01 level; and *** at the .001 level. The figures shown have been statistically adjusted for important baseline characteristics.

line abortion experience, women in the comparison group had a higher average number of abortions than the women who had enrolled in the Redirection program (0.5 versus 0.3, respectively). Consequently, the Redirection group had a higher average number of live births (2.4) than the comparison group (2.0) at the five-year point.

The contraceptive practices of the two groups were similar at the two most recent rounds of follow-up interviews, even though, at the one-year point, the Redirection teens had had somewhat higher rates of using birth control. At the five-year point, however, similar percentages of women in both groups had used birth control at last intercourse (about 70 percent); had taken the pill at last intercourse (about 42 percent); and had been sterilized (about 13 percent).

Because women with more children tend to have lower rates of employment and higher rates of welfare dependency than women with fewer children, it was surprising that the mothers in the Redirection group had better employment and welfare outcomes than the comparison group — despite their somewhat larger family size. The five-year analysis revealed that the experimental group women had more favorable work and welfare dependency outcomes than comparison group women, regardless of how many children they had. For example, among women with two or fewer children, the average weekly earnings of the former Redirection participants were $80, while those of the comparison group women were $54. Among the women with three or more children, the average weekly earnings were $46 and $24 for the experimental and comparison group women, respectively. Thus, the program appeared to have positive effects on employment outcomes for women with families of all sizes.

Parenting and Child Development Results. The five-year follow-up interview gathered information on the young mothers' parenting behavior and on the development of one of their children — usually their first child, who was then, on average, about five-and-a-half years old.

The mothers' parenting skills were assessed through a widely used scale (the HOME) designed to measure a mother's degree of warmth and acceptance and the extent to which she creates a stimulating and enriching home environment.[15] According to this scale, both the experimental and comparison group mothers were doing fairly well as parents. Their average score was the same as the average score for the sample on whom the scale was standardized. However, the scores also suggest that the mothers in the experimental group were providing their children with a more positive home environment than the comparison group mothers. The difference between the two groups was observed not only for the total HOME scale, but also for most subscales, including those that measure language stimulation in the home, maternal warmth and affection, and maternal acceptance.

Two other indicators of parenting also favored the mothers in the experimental group. Nearly half of the women who had participated in Project Redirection had enrolled their children in the Head Start program, compared to just over one-third of the comparison group women. The women who participated in the Redirection program during their pregnancies were also substantially more likely than comparison group women who were pregnant at baseline to breastfeed their babies (50 percent versus 20 percent, respectively). By contrast, among the women who were already mothers at baseline, the experimental and comparison groups had similar rates of breastfeeding (about 25 percent).

In the five-year interview, the children of these women were tested for receptive (hearing) vocabulary.[16] Children of the women who had participated in Project Redirection obtained higher scores, on average, than children of women in the comparison group. While children in the experimental group also had better scores on a problem behavior scale than children in the comparison group, neither group showed evidence of maladjustment.[17]

Because children of former Redirection participants were more likely to participate in the Head Start program than comparison children, it seemed possible that the positive child development outcomes among the experimental group children could reflect the effects of participation in Head Start rather than Redirection's

effect on the mothers' parenting skills. To examine this possibility, the separate effects of the Head Start and Redirection programs were considered. These analyses suggest that the child development outcomes are not primarily the result of increased participation in Head Start.[18]

Thus, the most consistent group differences to emerge at the five-year point reflect program impacts in parenting behavior and children's development. Nevertheless, it should be noted that the experimental group children's vocabulary test scores place them, on average, below the twentieth percentile nationally, indicating that these children have substantially poorer skills than most other children.

Impact Results for Subgroups

At the two-year follow-up, the experimental group as a whole was similar to the comparison group on such important outcomes as school completion, employment, and subsequent pregnancies. Nevertheless, program impacts were found among certain subgroups. For example, for those teens who were school dropouts at enrollment, the program produced significant educational differences: Twenty percent of the experimental dropouts — but only 11 percent of the comparison dropouts — had obtained a diploma or GED certificate at the two-year point. An employment effect was also observed for the subgroup of teens who were receiving AFDC benefits at enrollment. More experimental than comparison group teens receiving welfare (16 percent versus 10 percent) were employed at two years after baseline.

It is important to note that in no subgroup did experimental teens perform better than comparison teens across all of the outcome measures that Project Redirection sought to affect. Nevertheless, a pattern did emerge at the two-year point: The teens in the subgroups who seemed to benefit most from participating in the Redirection program were those who faced the greatest obstacles to self-sufficiency at the beginning of the study.

At the five-year point, positive program impacts for many important outcomes were not limited to specific subgroups, but rather were observed for the experimental group as a whole. Nevertheless, for some subgroups the Redirection program was especially effective.

Large and consistent long-term program impacts were sustained by a subgroup in which there is currently considerable public policy interest — women who at enrollment were receiving AFDC benefits (see Table 4). Within this subgroup, which comprised about two-thirds of the sample, the impacts on employment and welfare dependency were especially noteworthy. On average, the experimental women were working more hours per week, had worked more weeks in the year prior to the interview, and had earned substantially more money. In fact, their average weekly earnings ($76) were more than twice those of the women in the comparison group ($37). They were also less likely to be on welfare at the five-year point (54 percent versus 66 percent), and were similarly less likely to have received welfare at any time during the previous 12 months (57 percent versus 71 percent). As shown in Table 4, this subgroup of experimental women also did well, relative to similar comparison women with respect to the parenting and child development outcomes.

A second subgroup of women who especially benefited from the Redirection program in the long run was comprised of those who scored below average for the sample on a vocabulary test administered at the five-year point. Among the women with the poorest vocabulary skills, those who had participated in Project Redirection worked more than twice the number of hours per week on average (ten hours versus five) and had twice the average weekly earnings ($44 versus $20) as those in the comparison group. Program participation also favorably affected their parenting and child development outcomes. For example, the experimental group's children's vocabulary test scores averaged 80, compared to the average score of 74 for the children in the comparison group. However, despite these substantial program impacts, women with low vocabulary skills still had exceptionally poor outcomes overall. For example, the experimental group women with poorer vocabulary scores had average weekly earnings of $44, compared to average weekly earnings of

$101 for experimental group women with better vocabulary test scores.

Other subgroups of women who were relatively more disadvantaged at enrollment did not benefit to the same extent as these two disadvantaged subgroups. For example, experimental group women who had never worked or who were school dropouts at enrollment were not better off than comparison group women at the five-year point in terms of educational attainment, employment, or welfare dependency. Nevertheless, these two subgroups appeared to be strongly affected by the Redirection program in terms of the parenting and child development outcomes. For example, for the subgroup of women who had dropped out of school at baseline, the experimental group children scored a full eight points higher on the vocabulary test than children in the comparison group (83 versus 75, respectively).

It should be noted that the subgroup results confirm that long-term outcomes in education were the least influenced by participation in the program. In none of the subgroups was the rate of diploma/GED receipt higher (or lower) for the experimental than for the comparison group women.

Explaining the Pattern of Impacts

Overall, the five-year results suggest that, far from being transitory, the effects of participating in Project Redirection were long-lasting. In light of the disappointing results at the two-

TABLE 4

Selected Impacts of Project Redirection at Five Years after Baseline for Women Who Were Receiving AFDC Benefits at Baseline

Outcome	Project Redirection Group	Comparison Group	Difference
Percent with a Diploma/GED Certificate	47	43	4
Percent Employed	34	24	10
Mean Weekly Hours Worked	13	8	5*
Mean Weekly Earnings	$76	$37	$39**
Mean Number of Weeks Worked during Previous 12 Months	16	11	5*
Percent Receiving AFDC Benefits	54	66	−12+
Percent Receiving AFDC Benefits at Any Point in Previous 12 Months	57	71	−14*
Mean Number of Pregnancies	3.2	3.2	0.0
Mean Number of Live Births	2.3	2.1	0.2+
Mean Home Environment Score	44	39	5***
Percent Who Had Enrolled Child in Head Start	50	34	16*
Child's Mean Vocabulary Score	87	82	5*

SOURCE: Polit and White, 1988.

NOTES: The impacts are based on analyses with those women in the five-year subsample who had been receiving AFDC benefits at baseline (198 young mothers).

+ denotes statistical significance at the .10 level; * at the .05 level; ** at the .01 level; and *** at the .001 level. The figures shown have been statistically adjusted for important baseline characteristics.

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CASE STUDY

Barbara is an outgoing young woman whose baby was born when she was 17. Barbara and her siblings were raised by her mother. The family receives welfare, and some of the males deal in drugs or gamble to supplement welfare. Early in her high school years, Barbara met Jim, an older man who became her first sexual partner. He pressured her for sex, and, believing she was in love with him, she agreed. They maintained a steady relationship for three years, during which time Barbara moved out of her mother's house and into Jim's apartment.

Although her mother told her about birth control when she was 13, Barbara did not think she would really become pregnant and did not use it. She commented that "Pregnancy was the last thing on my mind." When she became pregnant, her boyfriend and her mother encouraged her to have an abortion, and Barbara now says that she, too, wanted one, but no one saw it through with her. Nevertheless, Jim provided financial and emotional support during the pregnancy, and Barbara continued to live with him.

During this time and after delivery, Barbara kept up an active sexual relationship with Jim and received birth control pills with appropriate instructions. She took the pills only irregularly, however. She said she either forgot or was not "home on a regular basis." As a result, she became pregnant again, but this time, the pregnancy was aborted.

Subsequently, Jim became involved with another woman, and he and Barbara broke up. Barbara returned to live with her mother. Jim continues to provide financial support, largely, according to Barbara, because of her "threats" to terminate his relationship with the child, for whom she now has sole responsibility. This does not present a scheduling problem because she neither works nor attends school, having dropped out when she became pregnant after a history of truancy.

Barbara's employment experience is also quite limited, consisting of brief spells of work at a few local stores. However, she has recently become anxious to set up her own household, and realizes that to do so she must seek employment. Yet, she has shown little initiative either to develop some skills or take up her education, and her record of participation in Project Redirection has been erratic. She sees her chief hope in re-establishing her relationship with Jim, who she believes could give her financial security and emotional comfort.

year interview, it is important to explain these surprisingly positive long-term effects, which are notable for their diversity and magnitude.

In addition to the possibility that the results reflect limitations in the study's methodology, one explanation may be that, at the five-year point, program impacts were generally observed for outcomes that were not measured in earlier interviews because they were not appropriate at the time. For example, child development was not measured at the two-year interviews, primarily because the participants' children were still infants and toddlers. Measures of child development for very young children are difficult to obtain and tend to be unreliable. Most of the economic outcomes for which there were five-year program impacts were also not examined in earlier rounds, when these women were too young to have steady employment. For example, it would not have been appropriate to measure average weekly earnings when these women were still teenagers who worked only intermittently, if at all. In general, the first two rounds of follow-up interviews focused on outcomes that were believed to be important determinants of later self-sufficiency — namely, school completion and avoidance of subsequent pregnancies.

A second point to note is that there *is* some consistency in the pattern of results over the three rounds of follow-up. The two-year results were disappointing primarily because the Redirection participants resembled comparison group members with respect to outcomes measured at a specific time, such as having completed school or being employed. Yet cumulative differences

over the first two years could help to explain impacts at the five-year point. For example, the experimental group mothers had held more jobs than comparison group mothers by the time of the two-year interview, and were more likely to have worked for pay at some time between enrollment and the two-year follow-up. They were also more likely to be looking for work at the two-year follow-up and to have had better scores on a test that measures knowledge about the world of work. These early experiences and skills may have fostered greater self-assurance about employment among the Redirection women and made them more appealing to employers, which in turn could have contributed to long-term success in the labor market.

Finally, at the five-year interview the young women may have been at a better point in their lives to use the Redirection experience than they had been three years earlier. Other longitudinal studies of disadvantaged young mothers suggest that they may be better able to "get on with their lives" when they are in their twenties than when they are still teenagers.[9] Perhaps the Redirection program was a positive bridge between adolescence and adulthood, providing participants with some of the skills, attitudes, and motivation needed in adult roles, which they could capitalize on when they were older.

Future Directions

The results of the five-year follow-up of the Project Redirection sample provide a basis for cautious optimism about interventions aimed at improving the prospects of disadvantaged teenage mothers. Caution is required primarily because the impact research did not use an experimental design — that is, eligible teens were not assigned to Project Redirection on a random basis. The resulting inevitable uncertainty underscores the importance of using an experimental design whenever possible.

These five-year impact results nevertheless represent the strongest evidence yet available that participation in a comprehensive service program designed to ameliorate the adverse consequences of early childbearing can have positive and long-lasting effects. These results suggest that the women who enrolled in Project Redirection achieved gains in employment, welfare dependency, and competency as parents. Presumably as a result of these effects on the mothers, their children's development was also favorably affected.

These new findings give us insights into how it is possible to "redirect" the lives of young mothers and into the limitations of current approaches. Perhaps the most critical lesson is that intensive, comprehensive programs are effective interventions for disadvantaged young mothers. A comprehensive approach appears to be appropriate, given both the complexity of the problems that poor young mothers face and the five-year results suggesting program effects that cut across several outcome areas. Including parenting education among these comprehensive programs is clearly important. Within Redirection, parenting was an important — and well-liked — component. The favorable parenting and child development outcomes presumably reflect the Redirection participants' increased skills in meeting their babies' physical, social, cognitive, and health needs. The employability component also appears to have helped the teens gain skills and experiences that they could build on in later years.

However, the findings also show that comprehensive programs are not a panacea. Despite the positive program impacts, the absolute levels of the outcomes experienced by Redirection participants are disheartening. Five years after enrollment, the majority of these young women had still not received their diplomas or GED certificates; were not working despite their desire to do so; and had received AFDC at some point during the previous 12 months. Although some of these young women were living in households with adequate incomes, the majority were living in poverty. Clearly, despite the positive effects of participation in Redirection, the

intervention was not enough to counter the long-term disadvantages that most enrollees confronted.

Implications of Project Redirection Findings for the Design of Future Programs

The pattern of positive outcomes at the five-year follow-up also suggests possible strategies for improving the effectiveness of programs geared to low-income, school-aged mothers. For example, Project Redirection was least successful in education and family planning. These components were rarely cited when participants were asked to name the component they liked the most or found most helpful. By contrast, employment workshops and parenting education — both areas in which program impacts were achieved — were among the most popular program components, and the ones the participants found most helpful. This popularity corresponds to aspects of these young mothers' lives that were important to them as teenagers, and that continued to be important to them in their twenties: their desire to be good parents and to improve their financial situations.

Education appears to be an area in which the programs had difficulty engaging participants. Many of the Redirection teens had not done well in school: They had repeated grades and dropped out of school even prior to their pregnancies. These teens were unenthusiastic about returning to regular public schools. Yet their choices were largely confined to the few alternative educational facilities available in their communities. Intensive remedial education, perhaps entailing self-paced or individualized instruction, might have allowed more teens to enjoy educational success, but this was not an option.

Although the program repeatedly emphasized how essential it was to finish school to get a good job, this message had to compete with childbearing, which for many teens was a more immediate positive experience than going to school. Their babies gave them "someone to love" and added meaning and purpose to their often troubled lives. The rewards of parenthood may also have made them less receptive to the program's family planning messages. Early repeat pregnancies were common, and all but a few of these women had two or more children by their early twenties. While most young women in the study did not seek an early repeat pregnancy, the participants' expressed love for their children, and their enthusiastic response to Redirection's parenting classes show that they derived many emotional rewards from parenthood.

The Redirection staff fostered a positive attitude toward childbearing, and apparently these efforts strengthened parenting skills. Indeed, participation in a program in which good parenting and healthy child development were explicit goals may have affected the young mothers' willingness to seek an abortion for subsequent pregnancies: An environment that encouraged nurturing and vigilant maternal behavior, in which babies were given a lot of love and attention, could well have dampened interest in terminating unintended pregnancies. Thus, the larger number of children born to the Redirection women, compared to the comparison group, may reflect both the failure of the family planning component to reduce unintended pregnancies and the success of the parenting component in teaching good mothering.

The solution is not to diminish the salience of parenting education, but rather to strengthen family planning. A major lesson of the demonstration is that program staff must promote family planning strongly and continuously in teen parent programs. The fairly "low-key" approach taken by the Redirection sites during most of the demonstration period appears to have been insufficient to motivate the participants to use contraceptives effectively.

Thus, the program appears to have had the greatest success in those areas to which the women were strongly attuned (parenting and employment instruction) and the least success

in areas about which they were less enthusiastic (education and family planning). This is not to suggest that programs should abandon efforts to incorporate education and family planning components — indeed, improvement in these areas is especially important to the long-term well-being of these women.[29] However, programs must make these services attractive to the teens and make them understand that being good parents and holding good jobs ultimately depend on their educational credentials and ability to plan their childbearing.

The Issue of On-Site Services. Besides being the two most popular program services, the parenting and employability components of Project Redirection were also offered on site in most cases. By contrast, while family planning and educational counseling were also offered on site, the actual services — that is, educational instruction and the dispensing of contraceptives — were delivered elsewhere. Services aimed at affecting employment and welfare dependency as well as parenting and child development could have been most successful because they were delivered on site. There are several reasons why on-site delivery of services might be connected with success. First, services offered outside the program are not necessarily appropriate for the target group. Educational programs are often geared to more academically capable students, and family planning services are often designed with older clients in mind. Second, delivering services on site makes it easier for staff to monitor both the quality of the services and teens' participation in them. Finally, teens may be most motivated not only to attend sessions held at the program site — where they are on familiar turf and are not "hassled" — but also to incorporate what they learn in their daily lives, in efforts to please and get praise from staff members whom they trust and respect. Although relatively costly, offering on-site services may be the most cost-effective strategy.

The Issue of Long-Term Dependency. The five-year subgroup results suggest another lesson: Programs such as Redirection are especially effective with certain disadvantaged subgroups of the teen-parent population. In particular, the program had its biggest effects on those women who as teenagers were receiving AFDC benefits. These women tend to have exceptionally long spells of welfare dependency, and much public policy attention had recently focused on them. Thus, the five-year findings have special relevance for efforts to target interventions for potential long-term welfare recipients. The findings suggest that the self-sufficiency of young welfare mothers can be enhanced through a comprehensive and supportive intervention, and that such interventions can be operated through local community agencies.

Although important as a first step, however, efforts to introduce and improve such comprehensive programs for school-aged mothers are not likely to solve the problem entirely. Some young mothers may not be ready or able to take advantage of comprehensive programs during their teens but may be able to do so at a later date. At the end of five years, despite the gains experienced by the experimental group overall, many of these women still were not working and were dependent on public assistance. Yet few of them were receiving any organized program services at the five-year interview, despite their educational deficiencies and lack of employment skills.

That few of these young women were in organized programs is not surprising because few programs are geared to disadvantaged young

mothers who are no longer school-aged and who have pre-school-aged children. These mothers are usually not served by Work Incentive (WIN) programs and state welfare employment programs because the age of their children (under age six) exempts them from required participation. They also tend not to be served by programs under the Job Training Partnership Act (JTPA) because these programs seldom offer needed support services such as childcare, counseling, and transportation. There appears to be a great need to identify effective strategies to increase the self-sufficiency of this group of young mothers.[21]

The results of the five-year follow-up of the Project Redirection sample indicate that social interventions *can* be fashioned to ameliorate some of the negative consequences associated with adolescent childbearing, and they support continued efforts to assist disadvantaged young mothers through comprehensive programming. The results also teach program planners and operators to be modest in their expectations about what can be achieved: Redirecting the lives of teenage mothers who are also handicapped by poverty is exceptionally difficult. It is a task that is not likely to be completed during these mothers' teenage years.

Footnotes

1. Seven publications on the original Project Redirection demonstration have been released. These are listed at the conclusion of the monograph. However, the information in this document draws heavily on three of these: Branch, Alvia; Riccio, James; and Quint, Janet. 1984. *Building Self-Sufficiency in Pregnant and Parenting Teens: Final Implementation Report of Project Redirection*. New York: MDRC; Polit, Denise F.; Kahn, Janet R.; and Stevens, David W. 1985. *Final Impacts from Project Redirection: A Program for Pregnant and Parenting Teens*. New York: MDRC; and Levy, Sydelle Brooks; with Grinker, William J. 1983. *Choices and Life Circumstances: An Ethnographic Study of Project Redirection Teens*. New York: MDRC.

2. National Center for Health Statistics. 1987. "1985 Advance Report of Final Natality Statistics." *Monthly Vital Statistics Report* 36, no. 4, Supplement.

3. Menken, Jane. 1981. "The Health and Social Consequences of Teenage Childbearing," in *Teenage Sexuality, Pregnancy and Childbearing*, edited by Frank F. Furstenberg Jr., Richard Lincoln, and Jane Menken. Philadelphia: University of Pennsylvania Press.

4. Panel on Adolescent Pregnancy and Childrearing, National Research Council. 1987. *Risking the Future: Adolescent Sexuality, Pregnancy and Childrearing*, 2 vols. Washington, D.C.: National Academy Press.

5. Congressional Budget Office. 1987. "The Dynamics of Welfare Recipiency Among Adolescent Mothers." Preliminary unpublished memorandum.

6. Bane, Mary Jo; and Ellwood, David. 1983. *The Dynamics of Dependence: The Routes to Self-Sufficiency*. Cambridge, Mass.: Urban Systems & Engineering, Inc.

7. Burt, Martha R.; and Moore, Kristin A. 1982. *Private Crisis, Public Cost: Policy Perspectives on Teenage Childbearing*. Washington, D.C.: The Urban Institute; and Burt, Martha R. 1986. "Estimates of Public Costs for Teenage Childbearing: A Review of Recent Studies and Estimates of 1985 Public Costs." Washington, D.C.: Center for Population Options.

8. Furstenberg, Frank F., Jr. et al. 1987. *Adolescent Mothers in Later Life*. New York: Cambridge University Press; and Moore, Kristin A., 1986. *Children of Teen Parents: Heterogeneity of Outcomes*. Final report

Footnotes continued

to the National Institute of Child Health and Human Development. Washington, D.C.: Child Trends, Inc.

9. Welfare regulations governing the four demonstration sites differed on whether the young women were considered eligible for AFDC while they were pregnant or only after they had given birth. In order to serve a large number of needy teens, as well as to reach slated enrollment levels, Project Redirection permitted two groups of teens — those who had not yet delivered but met the AFDC income test, and those whose children were eligible for aid although they themselves were not — to participate. These two groups are not included in the 70 percent figure cited.

10. For about 43 percent of the sample, baseline data were collected retrospectively during the one-year follow-up interview, rather than at the point of entering Redirection or the comparison group. This was necessary because the size of the research sample was increased after the baseline interviews had been completed for teens already in the study. A detailed statistical analysis that was conducted to assess the comparability of the two sets of baseline data detected no major biases. The data were therefore pooled for the final impact analysis.

    Of the teens who were interviewed at baseline, 79 percent of the experimental group and 93 percent of the comparison group completed two-year interviews. Of the teens who were first interviewed at the one-year point, 77 percent of the experimental group and 94 percent of the comparison group completed a two-year interview. There were some differences in the background characteristics of completers and non-completers, but they do not appear to be a source of major bias in the study's results.

11. At the five-year point, because of cost constraints, follow-up interviews were attempted only with those sample members for whom there was real (rather than retrospective) baseline data, and who had previously completed three rounds of interviews. Sample members from the Boston and Hartford sites were not re-interviewed, also because of cost considerations. Of the cases that met these criteria, 77 percent of the experimental group and 91 percent of the comparison group completed a five-year follow-up interview. As was true at the two-year point, there were a few modest differences in characteristics measured at baseline between the women who completed the five-year interview and those who did not, but the differences were small and appear not to have biased the five-year results. The five-year study methods are described in the full report to The Ford Foundation: Polit, D.F.; and White, C.M. 1988. *The Lives of Young Disadvantaged Mothers: The Five-Year Follow-Up of the Project Redirection Sample*. Saratoga Springs, NY: Humanalysis, Inc.

12. For example, nearly two-thirds of the comparison teens were enrolled in school or an educational program at the beginning of the study, compared to fewer than half of the experimental teens. While the impact analysis did statistically control for this difference in school enrollment (and for other observed differences), various characteristics often associated with being in school (such as higher motivation or fewer situational obstacles to school enrollment) could not be directly measured and thus could not be controlled. As a result, the comparison teens may have been a more advantaged group than the experimental teens from the start of the program. On the other hand, those who volunteered to enroll in a fairly intensive program such as Redirection might also have had above average motivation or family support. The difficulty with a design that does not use random assignment, then, is that there is no way of knowing for sure whether the two groups are really comparable, and thus whether differences at the end of the study reflect the effects of participating in the program or of differences that existed initially.

13. Analyses were undertaken to ensure that the five-year results did not merely reflect having used only a subsample of the entire Redirection sample, or the loss of respondents between the two-year and five-year points. For example, the two-year outcomes were completely re-analyzed using only the five-year subsample. Virtually the identical results were obtained as for the entire sample. These and other analyses suggest that the pattern of findings over the five-year study are not biased by the loss of subjects or the use at the five-year point of only those cases for which a real baseline interview was available.

14. Numerical estimates of human behavior are always subject to elements of chance and uncertainty. Because statistical tests can often rule out chance, these tests were conducted whenever appropriate. Differences between groups are "statistically significant" when there is less than a 10 percent probability

that there is no real program effect underlying the estimate. The tables in this report also indicate by plus signs and asterisks whether differences between groups were statistically significant at the 10, 5, 1, or .1 percent levels. Each of these significance levels indicates that there is only a one in 10, one in 20, one in 100, or one in 1,000 chance that a given difference would have occurred without the program.

15. The scale used was the Home Observation for Measurement of the Environment (HOME), one of the most widely used environmental process measures in studies of young children. The HOME uses a semi-structured interview process combined with observation items to evaluate the child's home environment. In the present study, the pre-school-age version of the HOME was used, which consists of 55 items that can be combined to form eight subscales and one total scale. The average score on the total scale for the Redirection sample, as well as for the HOME's standardization sample, was 42.

16. The vocabulary test used was the Peabody Picture Vocabulary Test (PPVT), which is designed for use with persons aged two-and-a-half to 40. The scores reported here are standard scores that take into consideration the children's raw scores and their ages. The standard scores have a mean of 100 and a standard deviation of 15. This means that a score of 100 is at the fiftieth percentile nationally; a score of 85 is at the sixteenth percentile.

17. The problem behavior scale used was the Eyberg Child Behavior Inventory (ECBI), which is designed to be completed by a parent. The ECBI consists of 36 items indicating a problem behavior (e.g., "refuses to obey until threatened with punishment"); the parent indicates on a seven-point scale the frequency of occurrence of each behavior. The average score for the standardization sample was 105 for five-year-olds and 114 for six-year-olds. The average score for the Redirection sample as a whole was 99, indicating somewhat fewer problem behaviors on average than for the standardization samples.

18. The experimental children who did *not* participate in Head Start had more favorable vocabulary test and problem behavior scale scores than comparison children who did participate in Head Start. For example, among the children in the experimental group, the average vocabulary test scores were 86 for those who had enrolled in Head Start and 85 for those who had not. Among the comparison group children, the average vocabulary test scores were 81 and 79 for those who did and did not participate in Head Start, respectively.

19. Furstenberg, F. et al. 1987.

20. Although there were program impacts on employment and welfare dependency *despite* the absence of impacts on educational attainment and fertility control, this does not mean that family planning and education are unimportant areas for program intervention. The women who were employed at the five-year follow-up worked mainly in unskilled, low-paying jobs, and few had worked continuously for more than one year. Moreover, women who had completed their basic schooling and had limited their childbearing were more likely than nongraduates and women with several children to be working and avoiding welfare dependency. This suggests that the Redirection program would have had even stronger impacts if it had been able to influence school completion and help teens postpone subsequent pregnancies.

21. MDRC is now in the initial stages of launching a demonstration — called New Chance — aimed at bridging this gap. The New Chance program, which involves comprehensive services focusing on education and employment training, is expected to be implemented in 15 to 20 sites nationwide starting in 1989. This demonstration will be rigorously evaluated using an experimental design.

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Merwin Hans, the Director of the National WIN Office in the U.S. Department of Labor at the inception of Project Redirection, had unusual foresight in directing the attention and resources of the WIN Program to the population of young teenage mothers. Gordon Berlin, at that time MDRC's program officer in the department, was instrumental in shaping the program's design and initial implementation.

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Manpower Demonstration
Research Corporation

Three Park Avenue
New York, New York 10016
(212) 532-3200

1669 Bush Street
San Francisco, California 94109
(415) 441-7605

Metropolitan
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